DAVIS·ROTHWELL EARLE & XÓCHIHUA P.C.

PORTLAND OFFICE
U.S. Bancorp Tower - 111 Southwest Fifth Avenue
Suite 2700 - Portland, Oregon 97204-3650
Telephone (503) 222-4422
Fax (503) 222-4428

SEATTLE OFFICE
Columbia Center - 701 Fifth Avenue
Suite 5500 - Seattle, Washington 98104-7096
Telephone (206) 622-2295
Fax (206) 340-0724

Ilene M. Gaekwad
Portland Office
Telephone Extension 634
Licensed in Oregon
E-mail: igaekwad@davisrothwell.com

December 11, 2015

Ms. Lori Cora
Assistant Regional Counsel
EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Re: Request for Written Determination Regarding Proper Classification and Handling of Waste from Portland Gas & Coke facility, CERCLA Docket No. 10-2009-0255

Dear Ms. Cora,

I am writing you on behalf of Siltronic Corporation ("Siltronic") to request from EPA a written determination regarding the proper classification for waste found at the former gas and chemical manufacturing facility of the Portland Gas & Coke Co. ("PG&C")--otherwise known as the "Gasco" site--including such wastes that are now found Siltronic's property. In addition, Siltronic seeks a determination regarding the requirements for handling remediation waste.

NW Natural ("NWN"), the corporate successor to PG&C, has long asserted that all waste streams from its historic operations at the Gasco Site, located at 7900 Northwest St. Helens Road in Portland, Oregon, resulted solely from the manufacture of gas from petroleum. Furthermore, NWN classifies this manufactured gas plant ("MGP") waste as *non-hazardous*.

This broad, all-inclusive classification has significant legal and regulatory consequences for Siltronic. A mischaracterization or misclassification of hazardous waste as non-hazardous waste, including that waste currently on Siltronic's property, or for which Siltronic has obligations under a Joint Order with NWN, potentially subjects Siltronic to future liabilities. Siltronic has a clear interest in the prevention of such future claims of liability for waste that is mischaracterized or mismanaged.

The issue is ripe for EPA determination now because inconsistencies have arisen in terms of the treatment of PG&C waste located on the Siltronic upland, the NWN upland, and in sediments off the two adjoining properties.

One inconsistency exists in the manner in which Siltronic and NWN each handle PG&C waste. Siltronic treats PG&C waste as listed F037 and F038 waste when manifesting the waste for off-site disposal, but NWN treats that same waste as "used oil" and sends it off-site as unregulated material to be burned as marine fuel with no manifesting or other controls.[1] The only time NWN treats waste from historic PG&C operations as hazardous waste is when the PG&C waste is co-mingled with what the Oregon Department of Environmental Quality ("DEQ") has categorized as spent solvent F002 from Siltronic. When addressing PG&C waste in sediments, NWN seeks to classify PG&C waste as "substantial product,"[2] and seeks treatment of those hazardous substances as solid waste and not hazardous waste.

A second inconsistency exists in the manner in which the two regulatory bodies, DEQ and EPA, treat waste from PG&C. DEQ accepts NWN's classification of PG&C waste as solely MGP material, and as non-hazardous. DEQ therefore allows NWN to treat such waste, when extracted from soil and groundwater, as "used oil," and allows NWN to burn it as marine fuel in an unregulated recycling facility. It is only when the waste may have come into contact with TCE releases from Siltronic that DEQ requires those materials be managed and disposed of as a hazardous waste.

EPA, on the other hand, has taken a different approach. EPA regulates the very same PG&C wastes --when in the river in sediments or river water-- because EPA and DEQ have a memorandum of agreement dividing responsibility for the Portland Harbor. DEQ manages the uplands and EPA oversees in-river remediation. During the Gasco "Tar Body Removal"[3] EPA required disposal of historic PG&C material removed from the Willamette River off NW Natural's property at 7900 Northwest St. Helens Road as "special waste,"[4] and required disposal of the waste in a hazardous waste landfill. NWN filed a formal request for dispute resolution, alleging EPA lacked authority to require NWN to dispose of non-hazardous solid waste at a RCRA subtitle C hazardous waste facility.[5]

The issues present in the 2004 removal action and dispute resolution request are now resurfacing as to Siltronic's and NWN's obligations pursuant to the sediments off the Siltronic

[1] Except to the extent it may also contain TCE accidentally released from Siltronic and required by DEQ to be characterized as F002 spent solvent.
[2] Statement of Work for Gasco Sediments Site, Substantial Product Definition, 3.6.2.1 US EPA Region 10 CERCLA Docket No-10-2009-0255 attached to Joint Order to which Siltronic is also a signatory. (Note: NWN is performing all work under the Joint Order).
[3] CERCLA Docket No. 10-2004-0068
[4] Memo from Daniel Opalski, Director of Environmental Cleanup Branch in Region 10, Dec. 17, 2004
[5] Request for Formal Dispute Resolution, NW Natural Bob Wyatt to EPA Sean Sheldrake, Oct. 21, 2004.

and NWN shorelines pursuant to an Administrative Settlement Agreement and Order on Consent for Removal Action[6] and the obligations arising out of the Portland Harbor Superfund Site.

NWN seeks to classify historic PG&C waste as non-hazardous "substantial product" and not hazardous Principal Threat Waste, and seeks resolution based on "consistency" with the Joint Order to which Siltronic is also a signatory.

Siltronic, on the other hand, wonders whether *any* of the historical PG&C waste can be characterized or classified as non-hazardous. Siltronic's review of the publicly available historical record of PG&C operations causes us to conclude that PG&C did not limit its activities to gas production. In fact, PG&C's refining, chemical manufacturing, coking, and pesticide production processes, were extensive and parallel to its gas manufacturing enterprise. A reasoned consideration might conclude that the waste from these historic manufacturing processes might be hazardous.

Based on the history of PG&C's operations and the regulations regarding the types of wastes generated by these operations, all discussed below, Siltronic asks EPA to provide written feedback regarding whether the contaminants on the NWN site, including portions of Siltronic's property, are properly characterized as a RCRA Hazardous Waste subject to regulations that accompany such a designation.

PART I: SOLELY MGP WASTE?

Our discussion is divided into two parts. Part I is primarily factual. It examines the factual support for NWN's underlying contention that all the waste from the PG&C plant was solely MGP material, which is the predicate on which its special treatment for that waste is based. As a result of Siltronic's historical investigation, it is concerned that NWN's description is over-simplistic. The PG&C plant was not just an MGP plant. The plant also had a long history of petroleum refining, chemical manufacturing, pesticide production, and coking.

Part II addresses a number of unanswered regulatory questions that arise in the event you determine that all the waste from the PG&C plant can be categorized as MGP material. These questions include whether the waste DNAPL is a "hazardous waste" and whether it is exempt from regulation.

I. Historical Background Regarding the Site

Siltronic, formerly known as Wacker Siltronic Corp., owns a single, undivided parcel of real property located at 7200 Northwest Front Avenue in Portland, Oregon. The property is adjacent to the Willamette River at around river mile 6.6. Siltronic acquired ownership of the property on August 17, 1978, from the City of Portland ("City"), acting by and through the Portland Development Commission as the duly-designated Urban Renewal Agency of the City.

[6] CERCLA Docket No. 10-2009-0255

Prior to acquisition of the Property, no official, agency, consultant, or any other person told Siltronic or its parent company ("Wacker") of the existence of any hazardous substance in the soil or water beneath the site, or provided any reason for Wacker to suspect the existence of such contaminants so as to warrant testing or further investigation. On the contrary, officials from the City and its development agency, PDC, told Wacker in response to its inquiries that the Property was vacant, undeveloped land, which had not formerly been used for any industrial purpose. The Property was inspected by Wacker representatives on foot and by helicopter. At that time, the Property was an almost level, grass-covered site that had been filled by prior owners, who, unbeknownst to Wacker, had buried various contaminants many feet beneath the surface.

Siltronic first learned of the possibility of NWN's predecessor PG&C's disposal of waste on its property after purchase, and confirmed the presence of those and other hazardous substances in 1985, soon after it publicly announced a tentative plan to expand by constructing a new manufacturing plant on an unused portion of the site. On the heels of the press report, NWN informed Siltronic PG&C had disposed of MGP wastes on portions of what became Siltronic's property, and that those wastes were subsequently buried under fill materials by another prior owner.

PG&C, NWN's predecessor, began purchasing property around 1910, and beginning in 1913 built and operated an oil gasification plant, refinery, petroleum coking operation, and chemical plant which manufactured, among other products, pesticides on the portion of its property adjacent to what later became the Siltronic property. Wastewater effluent, tar stills, and other wastes from the PG&C plant were discharged to a stream channel directly to the Willamette River and were placed in two unlined effluent settling ponds, which occupied property on both sides of what is now the property boundary between NWN and Siltronic. Over the years PG&C used a portion of its property, which later became Siltronic's property, to dispose of waste materials, tars, wastewater, and other unwanted materials.

In the mid-1990s EPA and DEQ began inquiry into suspected environmental contamination at in-river and upland areas along the Willamette River in what is now known as the approximately 10.5-mile stretch of the Portland Harbor Superfund Site. As a part of that investigation Siltronic and NWN either received or entered into several Administrative Orders with both DEQ and EPA to investigate releases from property they each now own. The Joint Order which NWN and Siltronic entered into with EPA related to the Gasco Sediments site is at EPA CERCLA Docket No. 10-2009-0255. As a signatory to that Joint Order with NWN and EPA, Siltronic has a vested interest in ensuring that all actions taken pursuant to that Order, for which Siltronic is jointly and severally liable, are consistent with the law and sound environmental practice.

II. The Issue

A. Classification of all PG&C waste as MGP waste appears designed to save disposal costs associated with management of those wastes as hazardous

The first issue is whether the entirety of wastes generated by PG&C was manufactured gas plant waste. NWN asserts all materials from "Gasco" are either "substantial product" as defined in the Statement of Work for the Gasco Sediments Site or MGP material exempt from classification as a characteristic hazardous waste on the basis of toxicity under 40 CFR 261.24(a)--a nod to the D.C. Circuit's opinion in *Association of Battery Recyclers v. US EPA*, 208 F.3d 1047, 1060 (2000). Siltronic believes the Gasco wastes are listed hazardous wastes because the constituents of the wastes from the totality of PG&C's historic refining, pesticide, chemical and coking operations include Appendix VIII toxic constituents, regulated by EPA at 40 CFR 261.

Siltronic's frustration is based not only upon the disparate treatment of MGP waste by the two regulatory agencies, EPA and DEQ, but also concern about the environmental consequences of failure to timely address this important issue. Siltronic, while not anxious to increase the costs of treatment or disposal of remediation waste, is well aware that the only thing more expensive than a big Superfund cleanup is two big Superfund cleanups. Siltronic wants certainty before proceeding to remediation. As such, the questions Siltronic presents here are provided consistent with Siltronic's ongoing obligations under the Section 104e obligations imposed by EPA, and acknowledge the need for written Agency determination which Siltronic may rely.

B. PG&C did not limit its operations to gas manufacturing; a significant percentage of its historical operations was devoted to refining, chemical processing, pesticide production, and coking

PG&C purchased approximately 150 acres of property along the Willamette River near Linnton in 1910, constructing a significant manufacturing operation on that land between 1913 and 1958. NWN characterizes the plant as an "oil gasification plant and by-products refinery." NWN alleges all waste in the Portland Harbor is the result "solely of waste associated with historic manufactured gas plant (MGP) operations,"[7] and seeks to prevent EPA from regulating that waste as a hazardous waste.[8]

The following information is gleaned from the Multnomah public library and other public sources and is provided here as important background. To assist EPA in its evaluation, Siltronic includes with this submission a detailed 1945 aerial photograph of the PG&C Gasco facility, and

[7] October 21, 2004 Request for Dispute Resolution from NWN, Bob Wyatt to EPA Sean Sheldrake.
[8] See 2004 NWN Request for formal Dispute Resolution and assertion that all material consists "solely" of MGP waste.

a detailed 1948 Site Map of the facility.[9] The Site Map can be printed out at 2' x 3', in order to see with specificity and detail the various manufacturing components of the plant. A higher resolution version of the photograph, Site Map and all other associated exhibits can be located at the following link. https://davisrothwell.sharefile.com/d-s59e649e92ec4b829

While it is true that PG&C manufactured gas, and in so doing, it created MGP waste, it also manufactured a host of other products, and the process for manufacturing those other products also produced waste, which merits responsible environmental management. In testimony before Congress in July of 1931, Federal Trade Commission employee, Mr. Dickerman provided testimony regarding PG&C their manufacturing process and markets. His remarks included the following: "The plant is excellently built. Besides recovering the lampblack, the solid fuel, they recover light oils, benzol and toluol for sale. In other words, the plant is operated fully as much to produce the by-products as it is to produce the gas itself, and in doing so they obtain revenues or income from these by-products which materially reduces the cost of the manufacture of the gas."

i. Refining

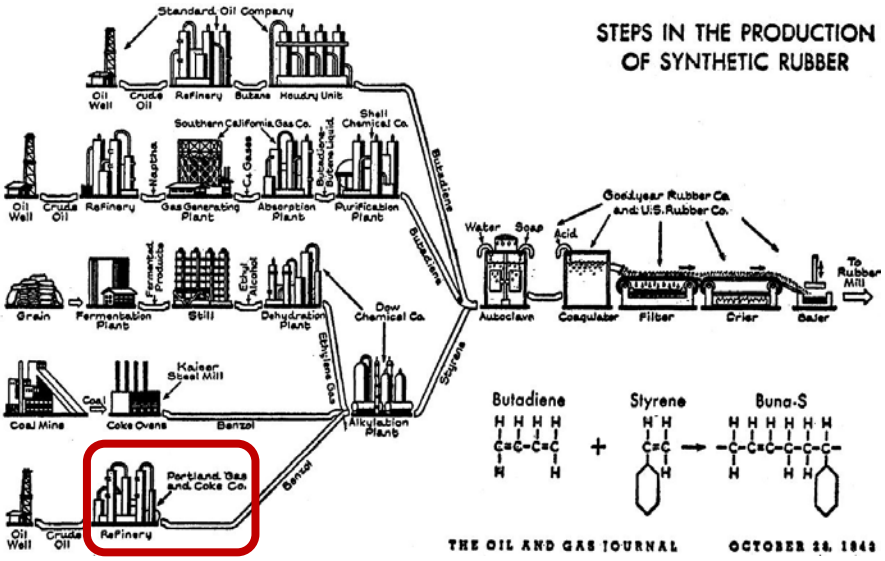
PG&C seems to have begun refining petroleum in about 1923. In an article dated November 4th, 1923, the Sunday *Oregonian*, reported on the construction of a new refinery at PG&C. The article discussed, with explanation of production, a new solvent product called benzol, used in the chemical, gasoline, and other industries. Significantly, the *Oregonian* wrote, "This is carried out in a separate refinery erected by the gas company and is a *complete process in itself."* (Emphasis added.) (Exhibit 1, "New Motor Fuel on Local Market")

On the Site Map, the benzol plant is the facility at bottom center-right, adjacent to the S.P. & S. R.R. spur, with a tank denoted "T-20 M.F. Benzol" and the actual refining building denoted "Still Building."

PG&C first used benzol as a motor fuel, and the *Oregonian* further mentioned the product's use in the dry cleaning and dye industries. Presciently, the *Oregonian* wrote: "In fact, so valuable is benzol to the chemical industry that it is probable the product of the local company eventually will be more highly refined and sold to this trade rather than being continued as a motor fuel." (Exhibit 1) That refinery was operated for more than 30 years at the Gasco site.

Later, World War II had resulted in such demand for benzol that it became a building block of the synthetic rubber industry. This pictorial from the *Oregonian* on July 30, 1944, is illustrative. (Exhibit 2, "Waste from Wood of Northwest's Forests Destined to Help Keep Family Car Rolling") It shows benzol originating from the Portland Gas & Coke Co. refinery (bottom left) to later processing plants to produce styrene and other chemicals.

[9] Publicly available at the City of Portland Archive, in the Fire Marshall's files.



A 1951 article in the PG&C annual report to shareholders remarks that its sales of petroleum coke and benzol were at an all-time high. (Exhibit 3, "By-Products Operations" 1951 Annual Report.) With respect to the production and refinement of benzol, the company reported nearly all of the approximately 5 million gallons of benzol produced that year was sold to "a government agency in California producing styrene for synthetic rubber." By 1955 the styrene plant supplied with benzol from Portland Gas and Coke had been purchased by Shell Chemical Corporation. (Exhibit 4, 1955 Annual Report, p 12, publically available at Multnomah County Library) Today that styrene plant is referred to as the Del Amo Superfund Site in Gardena California, and is also known in Region 9 as the Cadillac Fairview Superfund Site. (*Note: The principal contaminants at that Superfund Site include benzene and PAHs.*)

Also in 1955, the magazine "Chemical Week," in referring to PG&C as one of the Pacific Northwest's "major chemical process plants," listed benzene itself as one of the company's products, and PG&C later that year advertised itself as a manufacturer of benzol in "Chemical Week's" special "Buyer's Guide." (Exhibit 5, "Pair of Aces: Torrents and Tall Timber" *Chemical Week*. July 23, 1955, p. 21)

Benzene is a hazardous constituent and listed by EPA with hazardous waste code U019. Siltronic has found benzene in groundwater at Siltronic in 1,365 samples since 2009.

ii. Pesticide production

The construction of the benzol refinery in 1923 led to another new chemical business for PG&C. As the 1923 *Oregonian* article noted, the "wash oil" process preparatory to the benzol distillation removed naphthalene as an impurity. (Exhibit 1) Beginning in 1926, PG&C began to market naphthalene as a pesticide. (Exhibit 6, "Gasco Bulletin," Vol. IV., No. 11, March 1926, pp., 398-399, publically available at Multnomah County Library) .The

Oregonian describes the pesticides produced at PG&C in February 22, 1939. "Among the many useful chemicals manufactured by PG&C are chemicals such as naphthalene, produced to "eliminate slugs, moles, worms and other pests and in agriculture to eliminate wire worms, which destroy production of many crops on irrigated lands." A total of 282,882 ponds was sold in 1938. (Exhibit 7, "1,000,000 By-Products Recovered in Gas Making") PG&C advertised itself as a producer of naphthalene on p. 486 of the September 17, 1955 "Chemical Week Buyer's Guide." A separate naphthalene plant is clearly visible on the Site Map.

In addition to naphthalene, PG&C produced sulphur as a pesticide and fungicide. Even prior to the construction of a Chipman Chemical Plant in Portland, (now known as Rhone-Poulenc or the Bayer-Crop Science site), PG&C had entered into a contract with Chipman Chemical in Bound Brook, N.J., to distribute on a nationwide basis an "agricultural insecticide and fungicide" composed of high quantities of Sulphur. PG&C reported more than 50,000 tons of Sulphur had accumulated since the plant was built and although only 150 tons of the insecticide were sold in 1938. "The capacity of the plant, however, is approximately 2,000 tons, and it is believed that sales can be stepped up to this figure within a reasonable period." The report adds, "It is interesting to note that, in the Portland market area, all of the principal by-products produced, namely, briquettes, tar and benzol, are worth more, pound for pound, than is fuel oil." (Exhibit 8, "Report on Portland Gas & Coke Co.," by EBASCO Services, Inc. and PG&C, August, 1939, pages 21-22, publically available at Multnomah County Library). A separate Sulphur plant is clearly denoted on the Site Map.

Finally, PG&C reported in its 1946 annual report that its benzol was being used as a component in the manufacture of the pesticide DDT.

Naphthalene is a hazardous constituent listed by EPA at 40 CFR 261 with hazardous waste code U165. Siltronic's consultants have found naphthalene in groundwater on the Siltronic Site 1,104 times since 2009.

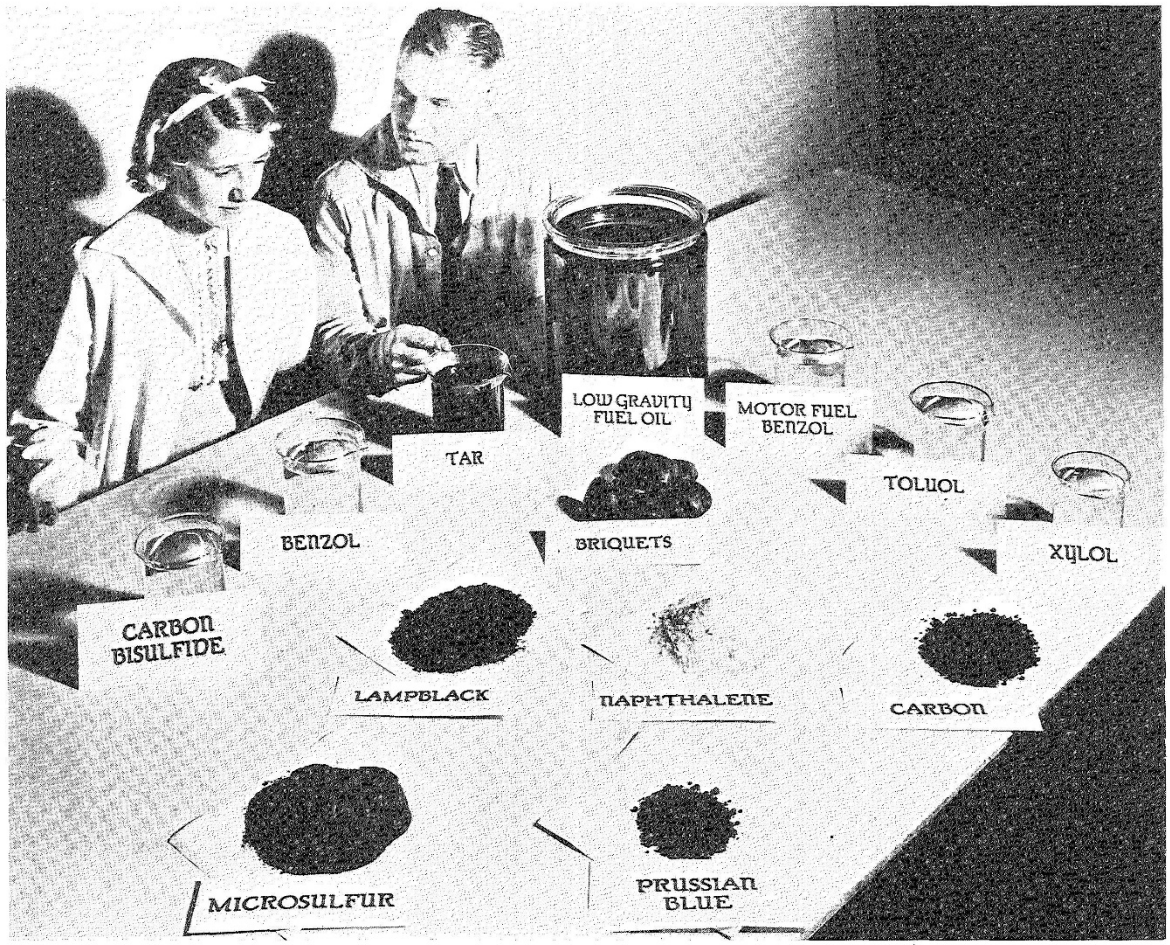
Carbon bisulfide is a hazardous constituent utilized in production by PG&C. Carbon bisulfide, also known as carbon disulfide, was found in groundwater at Siltronic 80 times since 2009 and carries hazardous waste code P022.

Cyanide is a hazardous constituent and is a waste by-product of PG&C activities. Total cyanide constituents have been found in groundwater samples at Siltronic 450 times since 2009. Total cyanide is a listed hazardous constituent with waste code P030.

iii. Chemical manufacturing

By the late 1930s, PG&C's chemical manufacturing was so advanced that the company actually built a "pilot plant" by which the company's "chemists and engineers" were able to develop new chemical products to produce and market. The 1938 annual report (Exhibit 9, p. 5) featured a photograph of the pilot plant.

E.L. Hall, the vice-president and chief engineer of PG&C in 1939 said, "[T]he Portland plant is one of the major chemical plants in the Pacific Northwest." (Exhibit 7) "Toluol" was produced as a solvent in the paint and chemical industries, as was tar from coking operations, as were many other products as depicted in this photograph from PG&C historic operations 1939. (Exhibit 8)



BY-PRODUCTS PRODUCED IN THE MANUFACTURE OF GAS FROM LOW GRAVITY FUEL OIL

By the 1940s, PG&C's influence in the chemical industry became so great that two other chemical manufacturing firms actually made proximity to the Gasco site as factors in their decisions to locate new plants. In an Editorial in the *Oregonian* entitled, "Chemical Center" (Exhibit 10, April 4, 1941), the paper opined:

> The never-closed list of products made from coal tar has its fascinating counterpart in derivatives of petroleum. Coal tar is a thick, black liquid that condenses in the pipes when gas is distilled

> from coal. There are similar residues when gas is distilled from petroleum and from these residues, too, may be released a valuable family of chemicals and many substances useful in manufacture. They form the basis for an investment of a million and a half dollars by the Portland Gas & Coke company in the foundation plant for what promises to make Portland the chemical center of the west. The Pennsylvania Salt company, of whose products chlorine is one, located its plant near the gas company in acknowledged anticipation of a tying in of products. Economic grouping was also influential in locating the Chipman Chemical Company.

In a 1946 corporate annual report, PG&C reported to shareholders on the company's *Petroleum and Chemical Product Operations*, citing a nearly 22 percent increase in sales of light oil, carbon, and tar products. (Exhibit 11, 1946 Annual Report.) The report adds a nearly 36 percent increase in the sale of benzol, toluol, xylol, and solvent naphtha, totaling nearly 4 million gallons that year. "The demand for benzol for the production of new chemical products, such as DDT and soap detergents, has recently become very great and is resulting generally in the diversion of much benzol from the motor fuel field into the chemical field where higher prices prevail." The periodical *Chemical Week* highlighted PG&C as one of the valley's "major primary chemical producers," listing chemical products manufactured, including: benzene, solvent naphtha, creosote, tar, toluene, naphthalene, and xylene, soft and hard pitch. (Exhibit 5).

Toluene has been found in groundwater at Siltronic 1,213 times since 2009 and carries hazardous waste code U220.

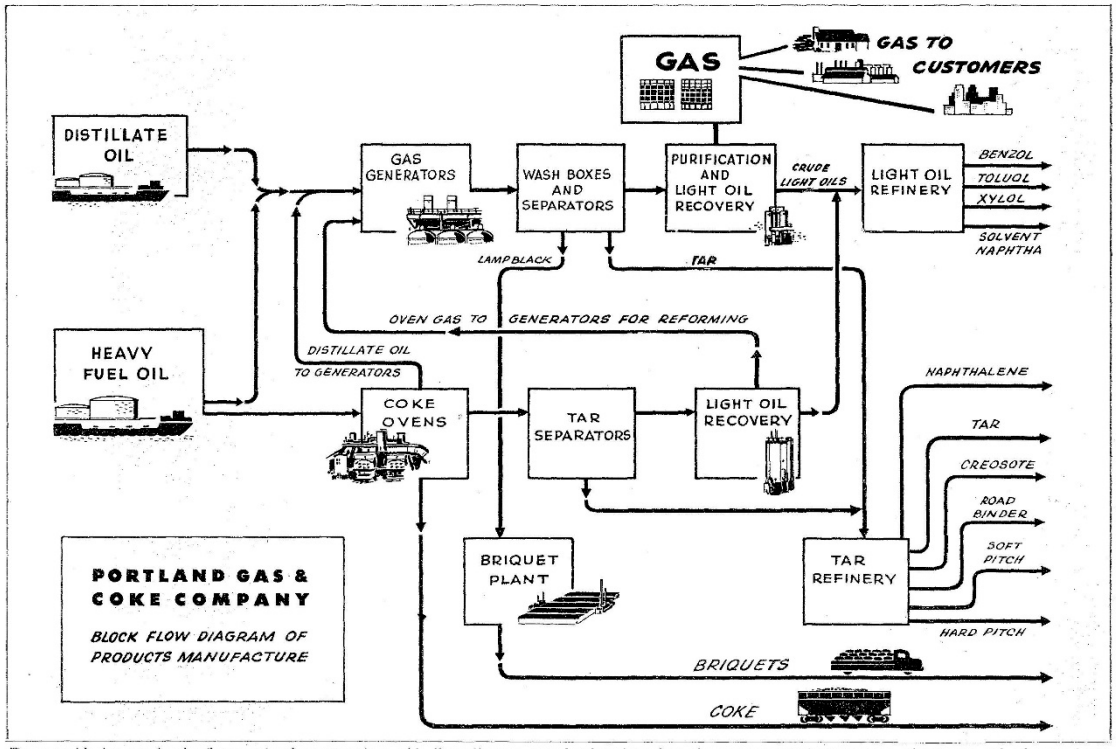
iv. Coking

The capstone of the development of PG&C's chemical operations occurred in 1941 with the construction of coking and pitch facilities. In 1941, The *Oregonian* hailed the construction of a new $1,500,000 basic chemical plant being constructed by PG&C. (Exhibit 12, "Gas Company to Add Plant," *Oregonian,* April 3, 1941). "Using the same raw materials as the company now possesses in its gas generators, the new plant will crack the heavy oil at higher temperatures in four Knowles coking ovens of special design, and it was explained. The process has been tested exhaustively in 'pilot' plants built by the gas company and results checked by Bechtel-McCone-Parsons Corporation, Los Angeles oil refining experts, Engineers of H.A. Brassert & Co., manufacturers of the Knowles coking oven, have also been in consultation with the gas company's staff."

The four coking ovens are clearly denoted on the Site Map. In addition, the Site Map shows a "coke quenching station" and a "coke bin" nearly on the property line with what is now Siltronic's property. The Site Map also shows a separate "Pitch Plant" as well as a set of "pitch cooling pans" adjacent to what is now Siltronic's property.

The 1946 PG&C report to shareholders (Exhibit 11) highlights the profitability of the operation of the company's petroleum coking operation: "petroleum coke is in great demand for the production of electrodes used in the aluminum industry, and the Company's output is only a fraction of the total requirements in the Pacific Northwest area where no other petroleum coke is produced."

A process flow diagram was included in the PG&C annual report that year so its customers and shareholders could understand the coking, refining, gasification, and other operations. (Exhibit 11) The flow chart is included here. Note that the gasification and coking and chemical manufacturing processes are complementary and related activities but not identical activities. The illustration by Portland Gas and Coke demonstrates the manufacture of gas as only one component of what appears to be a much bigger enterprise.



Due to wide interest in the Company's plant operations, this flow diagram was developed to show the various steps in processing oil into gas and other products.

1946 Annual Report, Portland Gas & Coke Company, pg 8

Petroleum coking activities were an important component of the activities at PG&C. By 1951, when PG&C provided its annual report to shareholders, it reported: "The by-products operations hit an all-time high in 1951." The two processes of note in this report are the petroleum coking operation and benzol production." (Exhibit 3)

> Petroleum coke and electrode pitch have continued to find a ready market in the aluminum industry. Sales in 1951 amounted to 13,000 tons of coke and 31,300 tons of pitch. An expansion of aluminum production capacity is now under construction in the Pacific Northwest, including a major installation in British Columbia. Five aluminum plants are now in this area. Three of these purchase all and the others purchase one-half of their pitch requirements from the Company. These take the entire present production capacity of the Company's facilities.

Not only did PG&C provide petroleum coke to the Pacific Northwest, exports of coking products to Asia also occurred. In an article in the *Oregonian* newspaper dated January 19, 1952, titled, "Five Vessels to Haul Coke," (Exhibit 13) it reports: "Five of the "Cimavi" [sic] type coastal motorships which the maritime administration recently has been recommissioning at Swan Island have been assigned to load cargoes of Gasco coke for shipment to Japan and other oriental points under army account."

III. **Conclusion to Part I**

Siltronic acknowledges the highly-unusual step of providing historic information regarding a neighboring property owner's waste generation activities at this stage of the Superfund process. Siltronic is in the untenable position of being subject to joint orders with NWN for both uplands and in-river activities, with disparate treatment of the same waste by DEQ and EPA. Further still, Siltronic believes the underlying assumption of both regulatory agencies that all waste is from manufactured gas may be over simplistic. Siltronic is therefore requesting assistance from EPA in proper waste classification and handling of remediation waste.[10]It is worth noting that "remediation waste" is defined by EPA to include, "all solid and hazardous waste, and all media (including groundwater, surface water, soils and sediments) and debris, that area managed for implementing cleanup."

In addition to the Joint Order with EPA for sediments off the NWN and Siltronic properties, NWN and Siltronic are also named as parties to a unilateral joint order with DEQ for uplands work.[11] The DEQ Order, like the EPA joint order, seems to accept NWN's representation that all waste from PG&C was MGP waste. The DEQ joint order finds that, "The tar ponds were periodically excavated and dredged tar disposed in low-lying areas, including on what is now the Wacker [Siltronic] property."[12]

In spite of the creation of an NPL site in the Willamette River, "DEQ approved NW Natural's plan to reclaim DNAPL recovered from groundwater at Gasco through re-refinement

[10] Remediation waste as defined in 40 CFR 260.10 is "all solid and hazardous waste and all media (including groundwater, surface water, soils and sediments) and debris, that are managed for implementing cleanup."
[11] DEQ No. ECVC-NWR-00-27
[12] DEQ Order page 2 of 13

of the DNAPL for commercial sale as bunker or marine fuel."[13] In essence, even though the same benzene, cyanide, naphthalene and other PAH's from PG&C operations created a superfund site, DEQ seems willing to conclude that all waste disposed on the ground or discharged to the river more than 70 years ago can simply be called "used oil" and disposed of as if it had never come into contact with soil or groundwater and become "part of the waste disposal problem." Unless, of course, it has come into contact with accidental releases of TCE from Siltronic early operations.

EPA and DEQ are working cooperatively to address issues related to the Portland Harbor and Siltronic requests written feedback with respect to how classification of NWN waste may be consistently regulated in uplands, riverbank, and in-river remedial actions.

PART II: IS MGP DNAPL A HAZARDOUS WASTE SUBJECT TO REGULATION?

A. This is a Superfund Response action governed by CERCLA, which requires compliance with other environmental statutes as well, such as RCRA

Superfund Response[14] was initiated because releases on property now owned by Siltronic and NWN were deemed by EPA to be "hazardous substances" released creating an imminent and substantial endangerment to human health and the environment sufficient to trigger CERCLA authority.[15] The Portland Harbor was listed on the National Priorities List ("NPL") in 2000. Among the hazardous substances triggering remedial action are PAHs, (polycyclic aromatic hydrocarbons), believed to derive from petroleum processing.

The cleanup standards for such hazardous substances required by CERCLA can be found at 42 U.S.C. § 9621. Section (d) of that provision requires remedial actions "shall attain a degree of cleanup of hazardous substances, pollutants, and contaminants released into the environment and of control of further release at a minimum which assures protection of human health and the environment." The statute requires that other environmental laws, which are more prospective in design, regulate hazardous waste management and disposal, as well as management and disposal of contaminants which are protective of human health and the environment. This is particularly the case when a remedial action transfers hazardous substances off site for treatment or disposal.[16]

In this context, the most applicable environmental law is RCRA.[17] This Act is designed to manage hazardous wastes from cradle to grave. Congress designed RCRA to "minimize the present and future threat to human health and the environment."[18] As such, regulations requiring

[13] Letter from NWN counsel, Patty Dost to Siltronic counsel, Ilene Gaekwad dated 12/5/14
[14] 42 U.S.C. § 9601(25)
[15] 42 U.S.C. § 9601(14) and EPA Docket No. 10-2009-0255
[16] 42 U.S.C. § 9621(d)(3) (the "offsite rule)
[17] 42 U.S.C. § 6901 et seq., the Resource Conservation and Recovery Act
[18] 42 U.S.C. § 6902(b)

proper identification and management of solid and hazardous waste are the hallmark of successful national policy. NWN believes MGP DNAPL from PG&C activities is "product" or "substantial product."[19] It is more likely PG&C waste material disposed of on the ground or in the river is waste. The question is whether it is a "solid waste" or "hazardous waste" under RCRA when actively managed during remediation.

Siltronic's inquiry is based upon a genuine concern for responsible environmental management and the obligation to defend Siltronic from needless involvement in another soon-to-be-created Superfund site or citizen suit defense.

B. Do RCRA hazardous waste regulations apply?

Characterizing waste is a difficult task, which is made much more difficult when the regulations governing classification continually evolve through EPA rule-making and court interpretation. Accordingly, Siltronic requests EPA's assistance in resolving this question.

Section 121(d)(2) of CERCLA, added by the Superfund Amendments and Reauthorization Act in 1986, requires that remedial actions must comply with federal and more stringent state environmental laws that are legally "applicable" or "relevant and appropriate" (commonly referred to as "ARARs") under the circumstances of the release or threatened release of such hazardous substance or pollutant or contaminant. ARARs are any promulgated standards, requirements, criteria, or limitations under federal environmental laws, or any promulgated standards, requirements, criteria or limitations under state environmental or siting laws that are more stringent than federal requirements, that are either legally applicable or relevant and appropriate under the circumstances. 42 U.S.C.§ 9621(d)(2)(A).

Although this is a CERCLA action, RCRA serves as an ARAR when it comes to waste classification, treatment, and disposal of CERCLA hazardous substances taken off-site for disposal.[20] The remediation ultimately required in this CERCLA Response action is expected to include the removal and transport off-site of such hazardous substances during remediation.

C. To be a hazardous waste under RCRA, the waste must first be a solid waste

RCRA defines a "solid waste" as any "discarded" material. A "discarded material" is defined as "any material which is abandoned, recycled, inherently waste-like, or is a military munition." 40 C.F.R. § 261.2(a)(2)(i)(A)-(D). Once a material has "become part of the waste disposal problem" and is thus a "solid waste," it remains a "solid waste" indefinitely.[21] *(Am. Petroleum Inst. v. United States EPA*, 906 F2d 729, 741 (D.C. Cir. [1990]) "It is unnecessary to read into the word 'discarded' a congressional intent that the waste in question must finally and

[19] CERCLA Docket No. 10-2009-0255
[20] EPA CERCLA Docket No. 10-2009-0255
[21] EPA Consent Order for GASCO Sediments Site, Docket No. 10-2009-0255

forever be discarded . . . . It is perfectly reasonable for EPA to assume Congress meant 'discarded once.'"[22]

Both EPA and courts have determined that once materials have been discarded on the land they are then "part of the waste disposal problem" and are considered a "solid waste."[23] Additionally, EPA has considered the "pattern of environmental damages that result from the mismanagement of recyclable materials (including contamination of soils, groundwater, surface water and air) [as] a strong indication that the [materials] were generally not managed as valuable commodities and were discarded."[24]

During its ownership and operations from 1913 through 1960, NWN's predecessor, PG&C, discarded at least 30,000 cubic yards of waste in its "tar ponds."[25] It is likely that by placing this waste into piles and into "tar ponds" throughout the NWN and Siltronic property, the waste was deposited, dumped, spilled, leaked, or placed into or on any land or water so that such solid waste or hazardous waste or any constituent thereof entered the environment and was discharged into the water, including ground water.[26]

Depositing material in an unlined pond, covering over that pond with fill, and selling the property to another party without taking any remediation action until compelled to do so some 50-plus years later would appear to meet the statutory definition of "discarded."

D. None of the exceptions to the definition of solid waste apply to material that has been disposed of on land, and become part of waste disposal problem

There are various exceptions to the definition of solid waste under RCRA. None apply here because the waste was dumped on the ground, where it remained for 50 years until this Response action was initiated.[27]

RCRA requires certain materials to be classified as "solid wastes" even if they are recycled.[28] Certain wastes used in a manner constituting disposal" are "solid waste" when they are: "(A) *Applied to or placed on the land* in a manner that constitutes disposal[.]"[29] One way materials can be "disposed of," and perhaps the most common way, is when those materials are "applied to land." *United States v. Pesses*, 1998 U.S. Dist. LEXIS 7902, 17 (W.D. Pa., May 6, 1998) (scrap metal secondary material that has been land applied is "disposed of" under CERCLA).

---

[22] *United States v. ILCO*, 996 F2d 1126, 1132 (11th Cir. 1993
[23] 73 Fed Reg 64668, 64672; 63 Fed Reg 28581; see also *Owen Elec. Steel Co. v. Browner*, 37 F3d 146, 150 (4th Cir. 1994) (slag held on the ground untouched for six months before sale for use classified as "solid waste")
[24] 73 Fed Reg 64668, 64673
[25] EPA Consent Order for GASCO Sediments Site, Docket No. 10-2009-0255
[26] 40 C.F.R. § 260.10
[27] 40 C.F.R. § 261.4
[28] 40 C.F.R. § 261.2(c)
[29] 40 C.F.R. § 261.2(c)(1)(a)-(b) (emphasis added)

The waste does not likely meet the definition of "commercial chemical products." Only certain products that are listed in 40 C.F.R. § 261.33 qualify under the exception from "solid waste" when reclaimed. The waste was disposed on land more than 50 years ago and has not been treated as a valuable product since. Moreover, whether the waste qualifies under the (c)(3) exception may not matter, because once a material has been classified as a "solid waste," and even where those materials are recycled and reclaimed for commercial value, those materials are still classified as "solid waste" and treated as such. *ILCO*, 996 F.2d at 1132 ("Previously discarded solid waste, although it may at some point be recycled, nonetheless remains solid waste").

The waste is not exempted from the definition of "solid waste" simply because NWN proposes to burn it as fuel. The DC Circuit Court of Appeals recently ruled that EPA must regulate hazardous waste, even when it is burned as fuel.

> "In particular, contrary to its stated rationale, EPA had no discretion to "reasonably determine that a material which is a legitimate fuel and which contains hazardous constituents at levels comparable to fossil fuels is not being 'discarded' within the meaning of [42 U.S.C. § 6903(27)]." 63 Fed. Reg. at 33,783. This is the very reasoning that the Congress rejected when it enacted section 6924(q) to close EPA's "regulatory loophole" for energy recovery. *Horsehead Res. Dev. Co.*, 16 F.3d at 1253. As we explained in *AMC I*, the Congress added section 6924(q) in response to EPA's regulations that excluded from the definition of "solid waste" (and thereby of "hazardous waste") hazardous materials that are—or will be—burned for energy recovery as not "discarded"; and the Congress "addressed this problem by deeming the offending materials to be 'discarded' and therefore within the statutory definition of 'solid waste.'" *AMC I*, 824 F.2d at 1189 (emphasis added).n7 Thus, for the purpose of interpreting section 6924(q), "discarded" is not, as EPA claims in the 1998 Rule, "an ambiguous term." 63 Fed. Reg. at 33,783. And EPA therefore has no discretion to "reasonably" construe the term to exclude hazardous-waste-derived fuels from regulation."[30]

Similarly, the waste does not qualify as a byproduct exempt from the definition of solid waste because it has been applied to the land. EPA has defined "by-product" to mean "a material that is not one of the primary products of a production process and is not solely or separately produced by the production process." 40 C.F.R. § 261.1(c)(3). EPA has set strict guidelines for

[30] *NRDC v. EPA*, 755 F.3d 1010, 1020 (D.C. Cir. 2014)

when a "reclaimed" waste may be excluded as a "solid waste." In almost every situation, a waste does not qualify for an exception where it has been "applied to the land."[31]

Certain materials are solid wastes when they are recycled in any manner. EPA's new regulations prohibiting sham recycling and the tests contained within the regulations are potentially relevant here. EPA amended the definition of solid waste in regulations effective in July of 2015 which specifically prohibited sham recycling because of the potential environmental harm which may result.[32]

There is no exclusion from the definition of solid waste which would seem to apply to the "substantial product" theory. 40 CFR 261.4(a)(12) states in relevant part:

> (i) Oil-bearing hazardous secondary materials (i.e., sludges, byproducts, or spent materials) that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process. . .*unless the material is placed on the land* [. . .] Except as provided in paragraph (a)(12)(ii) of this section, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under this section. Residuals generated from processing or recycling materials excluded under this paragraph (a)(12)(i), where such *materials as generated would have otherwise met a listing under subpart D of this part, are designated as F037 listed wastes when disposed of or intended for disposal.* (Emphasis added).

The regulations related to oil-bearing hazardous secondary materials seem to require PG&C waste to be classified as F037 listed waste if land disposed.

E. Regardless of whether MGP is a "substantial product" or "valuable byproduct," RCRA regulations appear to govern treatment and disposal when MGP waste is "actively managed" during remediation

RCRA regulations apply when remediation activities include "active management" of remediation waste. "Remediation waste" means: "all solid and hazardous waste, and all media (including ground water, surface water, soils, and sediments) and debris that are managed for implementing cleanup."[33] It would seem then that when sediments, including MGP DNAPL, are

---

[31] 40 C.F.R. § 261.2(c)(1)(a)-(b) ("Wastes that are "used in a manner constituting disposal" are "solid waste" when they are "applied to or placed on the land in a manner that constitutes disposal"); *Pesses*, 1998 U.S. Dist. LEXIS 7902, 17 (W.D. Pa. May 6, 1998) (scrap metal secondary material that has been land applied is "disposed of" under CERCLA). Once a material has been "discarded" it is a "solid waste," and "subsequent treatment is irrelevant." *Owen Electric Steel Co. v. Browner*, 37 F.3d 146, 150, n.4 (4th Cir. 1994).

[32] 2015 definition of "solid waste," 80 FR 1694, January 13, 2015

[33] 40 C.F.R. § 260.10

extracted from the Portland Harbor and soils in the upland, they must be treated, managed and disposed consistent with regulations in place at the time those materials are "generated" during remediation.[34]

What about the claim that hazardous waste listings do not apply because the material was not a listed hazardous waste at the time it was disposed of on the land? The courts have already seemingly resolved the issue. The *Chem. Waste Management* decision related to EPA's regulation through hazardous waste listing of landfill leachate. While not inappropriate at the time of disposal, the leachate from disposal did become regulated and required "active management."[35] In the *Chem. Waste* decision, petitioners objected to imposition of regulations for waste already disposed in a landfill when such disposal was not prohibited by regulation. The court said, "EPA's approach to contaminated soil is also reasonable and is entirely consistent with the agency's general regulatory framework, which emphasizes that a continuing presumption of hazardousness attaches to hazardous waste which changes form or is combined with other substances."

By analogy, remediation waste[36] being "actively managed" may need application of listed waste codes. Otherwise, we may simply be relocating one Superfund site to another location without proper treatment and disposal, contrary to national policy.[37]

Once contaminated soils, groundwater, and sediment are "actively managed" during remediation, all applicable hazardous waste codes apply prospectively to govern proper treatment management and disposal of that material.[38] Because petroleum refining activities, coking activities, chemical production activities and pesticide formulation activities all carry RCRA hazardous waste listings governing waste generation, it is important to receive clarification from EPA whether remediation waste will be considered hazardous waste.

Those constituents deemed by EPA to be sufficiently toxic as to merit a hazardous waste listing in RCRA regulations at 40 C.F.R. 261, have been found with significant frequency in PG&C waste present on Siltronic property. (Exhibit 14, Maul Foster Alongi Memorandum, Dec 10, 2015.) It is important to note that this is not a complete list of the hazardous constituents present in the PG&C waste located on the Siltronic property but is included here as an example.

F. Does EPA's new regulation regarding "sham recycling" require a different interpretation of MGP DNAPL as "used oil" in uplands remediation?

Although Siltronic is aware of the division regarding DEQ and EPA responsibility for Portland Harbor activities, the EPA's regulations restricting sham recycling may affect disposal of MGP DNAPL in the Upland and Siltronic seeks EPA input regarding regulatory overlap.

---

[34] *Id*.
[35] *Chem. Waste Management v. EPA*, 276 U.S. App., D.C. 207, 869 P.2d 1526 (1989).
[36] 40 CFR 260.10
[37] 42 U.S.C. § 902(b)
[38] *Chem. Waste Management v. EPA*, 276 U.S. App., D.C. 207, 869 P.2d 1526 (1989)

In the preamble to the 2015 Definition of Solid Waste Amendments,[39] EPA said "hazardous secondary materials stored or transported prior to recycling have the potential to present the same types of threats to human health and the environment as hazardous wastes stored or transported prior to disposal." In fact, EPA has found that recycling operations have accounted for a number of significant damage incidents. For example, hazardous secondary materials destined for recycling were involved in one-third of the first 60 filings under RCRA's imminent substantial endangerment authority and in 20 of the initial 160 hazardous material sites listed for potential cleanup under CERCLA.

Excluding all hazardous secondary materials destined for recycling would allow materials to move in and out of the hazardous waste management system depending on what any person handling the materials intended to do with them. This could arguably be inconsistent with the RCRA mandate to track hazardous wastes and control them from "cradle to grave."

K. What hazardous waste codes are potentially applicable to Portland Gas and Coke wastes when "actively managed" during remediation?

If EPA determines that PG&C activities, although unregulated at the time of disposal, resulted in releases from non-specific sources,[40] then remediation waste[41]when actively managed may benefit from the following waste designation and management requirements:

F003 Xylene and ethyl-benzenes[42]
F005 Toluene, carbon disulfide, and benzene
F037 Petroleum refinery primary oil/water/solids separation sludge
F038 Petroleum refinery secondary (emulsified) sludge
F039 Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part.

In addition to the hazardous waste listings from non-specific sources above, the following waste codes may also be applicable as hazardous substances were disposed on site was a result of these specific activities. These waste codes can be found at 40 CFR 261.32(a):

K035 Wastewater from the production of creosote
K048 Dissolved air flotation (DAF) from the petroleum refining industry
K049 Slop oil emulsion solids from the petroleum refining industry
K050 Heat exchanger bundle cleaning sludge from the petroleum refining industry
K051 API separator sludge from the petroleum refining industry

[39] 80 Fed Reg. 1694 January 13, 2015
[40] Like accidental TCE releases from Siltronic
[41] 40 CFR 260.10
[42] 40 CFR 261.31

K052 Tank bottoms (leaded) from the petroleum refining industry
K169 Crude oil storage tank sediment from petroleum refining operations
K170 Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations

K171 Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulferize feeds to other catalytic reactors
K172 Spent Hyrdrorefining catalyst from petroleum refining operation, including guard beds used to desulferize feeds to other catalytic reactors
K087 Decanter tank tar sludge from coking operations

It appears that all of the above waste codes would be applicable to PG&C waste based upon a careful review of the publicly available historical documentation, much of which was authored by PG&C engineering and management staff themselves.

CONCLUSION

Siltronic requests clarification from EPA regarding the appropriate classification of remediation waste[43] generated during in-river and uplands remediation activities. In Siltronic's view, it is critical to accurately classify the waste because if the waste is mistakenly classified as non-hazardous, and is transported offsite and burned or land disposed at another location without sufficient treatment, it may result in another Superfund site. When EPA looked at this issue years ago, it does not appear to have all the historical information before it, and assumed that PG&C was involved in only manufacturing gas, and not in the chemical production, petroleum refining, coking or insecticide business.

Even without considering the newly-discovered information regarding PG&C's historical operations on the property, Siltronic requests clarification from EPA regarding the waste because the waste appears to have hazardous constituents, and Siltronic fears the consequences of improper waste management.

If after review of the newly-discovered evidence regarding PG&C's historical operations on the property, as well as a review of the current regulations and case law, EPA still believes PG&C waste generation was limited to the production of manufactured gas, or that the waste on the property is not a RCRA solid or hazardous waste, Siltronic requests a written determination to utilize in the event remediation waste from activities under the EPA Joint Order or DEQ joint unilateral order become the subject of a future regulatory action, civil proceeding, or citizen's suit.

[43] 40 CFR 260.10

Sincerely,

Ilene M. Gaekwad and

James J. Nicita

cc: Sean Sheldrake, EPA Project Manager
Dana Bayuk, DEQ Project Manager
Keith Johnson, DEQ Section Chief
Nina DeConcini, DEQ Regional Division Director
Patty Dost, Pearl Legal Group, counsel for NWN
Gary Vrooman, Oregon Department of Justice